

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1 and 4-11 are pending in this application. Claims 1 and 11 are the only independent claims under consideration. By this Amendment, Claim 1 is amended to correct an informality. No new matter is added.

The Official Action issues a Restriction Requirement, and withdraws independent Claim 11, based on the belief that Claim 11 is directed to an invention distinct from the invention of Claims 1 and 4-10. The Restriction Requirement is respectfully traversed for several reasons.

First, this application is a national phase of a PCT application. Thus, the unity of invention standard applies, not standard U.S. restriction practice. Further, it is believed that the claims of this application comply with the unity of invention requirement, as evidenced at least in part by the observation that concern about unity of invention was not raised in the corresponding international application where claims similar to those at issue here were considered.

In addition, the Official Action states that Claims 1 and 4-10 were constructively elected by original presentation. However, much of the subject matter of Claim 11 also was originally presented to the Examiner. Moreover, the Examiner is required to show that examining all of the claims of this application at the same time would present a serious burden to the Examiner. Here, the Examiner has previously searched and examined at least some of the subject matter of Claim 11. In addition, examining all claims would only involve consideration of one additional claim. Accordingly, it is believed that examining all of the claims of this application at the same time would not present a serious burden to the Examiner. It is also

believed that the search required for Claims 1 and 4-10 would likely extend into those areas where Claim 11 would be searched.

In view of the above, reconsideration and withdrawal of the Restriction Requirement is respectfully requested.

The Official Action rejects Claims 1 and 4-10 under 35 U.S.C. §112, first paragraph, because of the phrase "bismuth metal and/or antimony metal" recited in Claim 1. Claim 1 is amended to obviate the rejection by reciting "bismuth metal or antimony metal". This aspect of Claim 1 is discussed, for example, in lines 29-31 of page 4 of originally filed specification. Withdrawal of the rejection is respectfully requested.

The Official Action rejects Claim 1 and 4-10 under 35 U.S.C. §103(a) over U.S. Patent No. 6,253,988 to Pereira in view of U.S. Patent No. 6,184,475 to Kitajima et al. ("Kitajima") or U.S. Patent No. 5,368,814 to Gonya et al. ("Gonya"). The rejection is respectfully traversed.

Independent Claim 1 recites a vehicular glazing panel including, *inter alia*, a second electrically conductive component which is joined to a first component by a lead-free solder. The lead-free solder includes tin in an amount that is less than 50% by weight and a mechanical stress modifier, which inhibits the occurrence of a stress fault in the pane of glass in the region of the solder, in the form of bismuth metal or antimony metal.

Pereira discloses a low temperature solder composition for soldering to glass (see col. 1, lines 25-28 of Pereira). The Official Action acknowledges that Pereira fails to disclose a solder composition having antimony or bismuth as a stress modifier, but takes the position that such a solder composition is disclosed by each of Kitajima and Gonya. Kitajima discloses a lead-free solder composition comprising

tin at about 34% by weight and bismuth at about 46% by weight (see Fig. 1 and col. 9, line 64 to col. 10, line 1). Kitajima also discloses antimony as an optional element (see Abstract). Gonya discloses a lead-free solder alloy comprising tin at 42-48% by weight and bismuth at 48-56% by weight (see col. 3, lines 60-63).

The Examiner takes the position that it would have been obvious to one skilled in the art to substitute either the composition disclosed by Kitajima or the composition disclosed by Gonya for Pereira's solder composition to result in the Claim 1 glazing panel. Applicants respectfully disagree that such a modification would have been obvious.

Pereira discloses a "low temperature solder" whose composition has a considerably lower melting temperature than solder compositions conventionally used for soldering to glass (see col. 1, lines 25-28 of Pereira). The higher melting point of conventional solders resulted in a heat flow to the glass windshield that damaged the glass in regions near the solder joint by, for example, causing cracking (see col. 1, lines 18-22). Pereira's solder composition is specifically selected to have a relatively low melting point so that heat flow to the glass will not damage the glass. Pereira further discloses that the low melting temperature of the solder composition is achieved by the particular elements present and the relative amounts of those elements within solder composition (see col. 2, lines 40-42). In particular, Pereira's solder composition contains antimony in the amount of 0.75% by weight as a *maximum* amount, and bismuth in the amount of 0.25% by weight as a *maximum* amount (see col. 2, lines 45-65). Pereira states that increasing these specific amounts will adversely effect the material properties of the solder composition (see col. 2, line 45 to col. 3, line 2), i.e., the low melting temperature of the solder composition.

Accordingly, replacing Pereira's solder composition with either of the compositions disclosed by Kitajima and Gonya, each of which includes bismuth in an amount much greater than the *maximum* 0.25% by weight discussed in Pereira, would provide a solder composition having a higher melting point. For example, the melting point of Gonya's composition is 138 °C (see col. 6, lines 3 and 4 of Gonya) as compared to a melting point of 118-121 °C of Pereira's solder composition (see col. 1, lines 48 and 49 of Pereira). The higher melting point would result in a heat flow to the glass windshield that damages the glass in regions near the solder joint, as discussed above. Accordingly, substituting the composition disclosed by Kitajima or the composition disclosed by Gonya for Pereira's solder composition, as suggested by the Official Action, would damage the glass in regions near the solder joint and render the solder unsatisfactory for its intended purpose (MPEP §2143.01(V)). Thus, the solder compositions of Kitajima and Gonya are not suitable "alternatives" to Pereira's solder composition and are not "functional equivalents" of Pereira's solder composition as suggested in the final paragraph on page 4 of the Official Action. One skilled in the art would not have found it obvious to use either of the compositions disclosed by Kitajima and Gonya in place of Pereira's low temperature solder composition. Kitajima and Gonya disclose solder compositions used in the electronics industry, rather than the automobile window industry (the industry in which Pereira's composition is used) where components are soldered to glass substrates. Thus, Kitajima and Gonya are not concerned with the problems of heat flow damage to the windshield glass or stress faults that arise when soldering components to glass substrates. The Office Action fails to consider the references and claims as a whole and relies on impermissible hindsight using knowledge gleaned only from Applicant's disclosure (see MPEP §2145(X)(A)).

In view of the above, Claim 1 is patentable over the combination of Pereira and Kitajima or Gonya.

Claims 4-10 are patentable over the applied references at least by virtue of their dependence from patentable independent Claim 1. Thus, a detailed discussion of the additional distinguishing features recited in these dependent claims is not set forth at this time. Withdrawal of the rejection is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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